

REMARKS

Reconsideration of the rejections set forth in the Office action mailed August 30, 2006 is respectfully requested. Claims 1-6 and 9 are currently pending in this reissue application.

I. Claim Status

Claims 1-6 and 9 are currently pending in this reissue application. Claims 1-6 were found free of the prior art in the Office Action mailed August 30, 2006.

II. Amendments

Claim 9 is amended to recite that, in the plurality of different polynucleotides, each having an oligonucleotide tag attached, "substantially all the same molecules have the same oligonucleotide tag attached and substantially all different molecules have different oligonucleotide tags attached". Support is found in the specification at, for example, column 3, lines 50-51 and column 4, lines 15-18 of the original patent.

No new matter is added by the amendments.

III. Rejections under 35 U.S.C. §102(b)

Independent claim 9 was rejected under 35 U.S.C. §102(a) as being anticipated by Wang *et al.* (EP 0304845). The rejections are respectfully traversed in light of the following remarks.

A. The Claim

Claim 9 is directed to a composition of matter comprising a plurality of different polynucleotides, selected from cDNA molecules or fragments of a target polynucleotide to be analyzed or sequenced. The composition includes a mixture of microparticles, wherein tag complements are attached to each microparticle. Each of the plurality of different polynucleotides, that is, each cDNA molecule or fragment, has an oligonucleotide tag attached, such that substantially all identical polynucleotides have the same tag and substantially all different polynucleotides have different tags.

Perfectly matched duplexes are formed between the tag complements of the microparticles and the oligonucleotide tags of the cDNA molecules or fragments, whereby

each microparticle has identical polynucleotides of the plurality attached thereto, and substantially all different polynucleotides in the plurality are attached to different microparticles.

B. The Prior Art

Wang (EP Pubn. No. 0304845) describes an assay method which employs microparticles linked to polynucleotides (“gene probe molecules”). As shown in Fig. 1, and described at page 4, lines 21-26 of the document, the “gene probe molecules” may be linked to the microbeads via short hybridizing sequences, which are homopolymeric: “When the gene probe molecules are linked to the microbeads by linking to the ends of RNA or DNA polymers, the polymers linked to the microbeads are poly (X) homopolymers and the gene probe molecules are extended with poly (Y) homopolymers...”, where X and Y are the strongly base-pairing nucleotides C and G (page 4, lines 21-26).

In this case, one of poly (X) and poly (Y) could be termed a “tag”, and the other a “tag complement”. Because they are homopolymeric and derived from C, G, dC, or dG, only a limited number of different such “tags” could be employed.

There is no indication or suggestion in the reference that “substantially all different polynucleotides have different tags”. On the contrary, in the experiment described on page 8 of the document, “poly (dC) coated” microbeads are used to prepare two different probe populations, one for *myc* and another for *ras*, where the two different probes are both “poly (G) extended” (page 8, lines 9-11). Accordingly, the two different probes have identical “tags”.


Because the reference does not teach all the limitations of amended claim 9, the claim cannot be anticipated by this reference. Accordingly, the applicant respectfully requests that the rejection be withdrawn.

IV. Conclusion

In view of the foregoing, the applicant submits that the claims now pending are now in condition for allowance. A Notice of Allowance is, therefore, respectfully requested.

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Respectfully submitted,


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